TABLE OF CONTENTS

		Page
1.0	INTRODUCTION	1
1.1	Purpose of Study	1
1.2	Authority and Acknowledgments	1
1.3	Coordination	1
2.0	AREA STUDIED	2
2.1	Scope of Study	2
2.2	Community Description	2
2.3	Principal Flood Problems	2
2.4	Flood Protection Measures	4
3.0	ENGINEERING METHODS	4
3.1	Hydrologic Analyses	4
3.2	Hydraulic Analyses	5
4.0	FLOOD PLAIN MANAGEMENT APPLICATIONS	6
4.1	Flood Boundaries	6
4.2	Floodways	6
5.0	INSURANCE APPLICATION	7
5.1	Reach Determinations	10
5.2	Flood Hazard Factors	10
5.3	Flood Insurance Zones	10
5.4	Flood Insurance Rate Map Description	11

BEST COPY AVAILABLE

TABLE OF CONTENTS (Continued)

		Page
6.0	OTHER STUDIES	11
7.0	LOCATION OF DATA	11
8.0	REFERENCES AND BIBLIOGRAPHY	13

FIGURES

Figure	1	-	Vicinity Map	3
Figure	2	-	Floodway Schematic	7

TABLES

Table	1	-	Summary of Discharges	5
Table	2	-	Floodway Data	8
Table	3	-	Flood Insurance Zone Data	12

EXHIBITS

Flood Profiles

Mill Street Creek	Panels	01P - 02P
Prospect Street Creek	Panel	03P

Flood Boundary and Floodway Map

PUBLISHED SEPARATELY:

Flood Insurance Rate Map

BEST COPY AVAILABLE

FLOOD INSURANCE STUDY

CITY OF KEWANEE,
HENRY COUNTY,
ILLINOIS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study investigates the existence and severity of flood hazards in the City of Kewanee, Henry County, Illinois, and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood risk data for various areas of the community that will be used to establish actuarial flood insurance rates and assist the community in its efforts to promote sound flood plain management. Minimum flood plain management requirements for participation in the National Flood Insurance Program are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

In some states or communities, flood plain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence and the state (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgments

The sources of authority for this Flood Insurance Study are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

The hydrologic and hydraulic analyses for this study were performed by the U.S. Army Corps of Engineers (COE), Rock Island District (the Study Contractor) for the Federal Emergency Management Agency (FEMA), under Contract No. EMW-E-1153, Project Order No. 1, Amendment No. 2. This study was completed in July 1984.

1.3 Coordination

Streams requiring detailed and approximate study were identified at a meeting attended by representatives of FEMA, the Study Contractor, and the City of Kewanee on April 4, 1983.

Results of the hydrologic analysis were coordinated with the Illinois Department of Transportation, Division of Water Resources. Community officials have been provided a copy of this study for review.

On April 23, 1985, the results of this Flood Insurance Study were reviewed and accepted at a final coordination meeting attended by representatives of the Study Contractor, FEMA, and the community.

BEST COPY AVAILABLE

2.0 AREA STUDIED

2.1 Scope of Study

This Flood Insurance Study covers the incorporated area of the City of Kewanee, Henry County, Illinois. The area of study is shown on the Vicinity Map (Figure 1).

Flooding caused by overflow of Mill Street Creek, from about 1,600 feet downstream of East Street to just downstream of Junior Street, and Prospect Street Creek, from about 950 feet downstream of Maple Avenue to just downstream of Prospect Place, was studied in detail.

Approximate analyses were used to study those areas having a low development potential or minimal flood hazards.

Flooding along Alexander School Creek, from the mouth to just downstream of Lake Street, and Manchester Drive Creek, from the mouth to just upstream of Harrison Street, was studied by approximate methods.

The areas studied were selected with priority given to all known flood hazard areas and areas of projected development or proposed construction through July 1989. The scope and methods of study were proposed to and agreed upon by FEMA and the City of Kewanee.

2.2 Community Description

The City of Kewanee is located in southeastern Henry County in northwestern Illinois. The city is completely surrounded by the unincorporated areas of Henry County. The total area contained within the corporate limits is approximately 5.28 square miles. According to the 1980 census, the population of Kewanee is 14,508 (Reference 1). The city is served by U.S. Route 34, and State Routes 78 and 81.

Although the community is primarily industrial, farming and commercial businesses also contribute to the well-being of the community.

Kewanee has a continental climate typical of northwestern Illinois. Annual precipitation averages 36 inches. More than half of the annual precipitation normally falls during the growing season from May through September. The mean average temperature is 51 degrees Fahrenheit (F). January is the coldest month and July is the warmest, with average temperatures of 23 degrees F. and 75 degrees F., respectively (Reference 2).

2.3 Principal Flood Problems

According to citizens and officials of Kewanee, flooding is periodically experienced after a heavy storm (particularly along Mill Street Creek). Due to the small drainage areas and hydraulic features of the streams, the water reaches its peak and recedes within a period of approximately one or two days. The flood plain is primarily residential; however, there are a few businesses located in the flood plain.

BEST COPY AVAILABLE

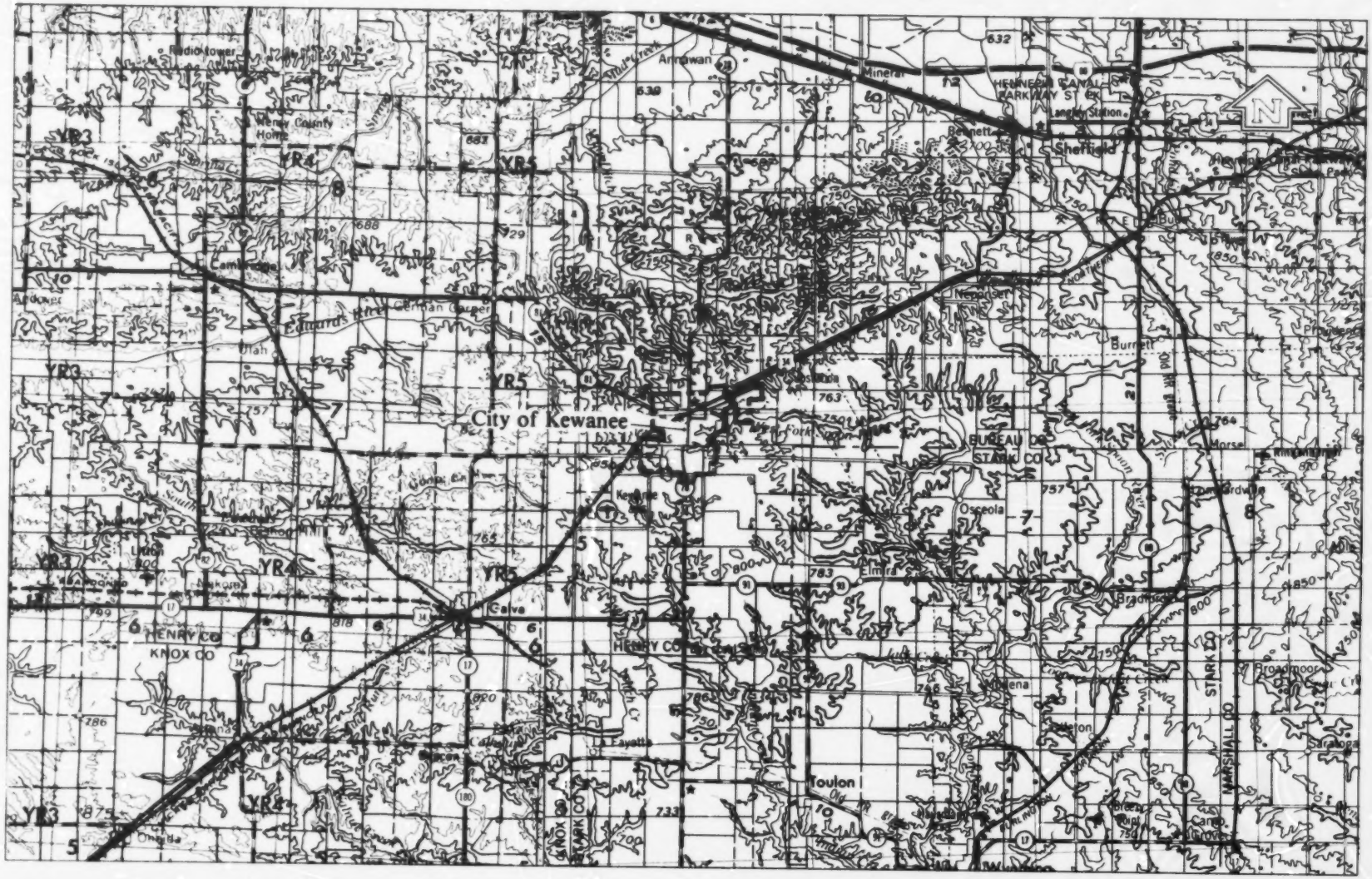


FIGURE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL

(HENRY CO.)

APPROXIMATE SCALE

4 0 4 8 12 MILES

VICINITY MAP

BEST COPY AVAILABLE

2.4 Flood Protection Measures

In recent years, the City of Kewanee has taken action to help alleviate flooding along Mill Street Creek. This work included dredging the channe' and clearing the overgrowth from the banks. There are no existing or proposed flood protection projects.

3.0 ENGINEERING METHODS

For the flooding sources studied in detail in the community, standard hydrologic and hydraulic study methods were used to determine the flood hazard data required for this study. Flood events of a magnitude that are expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for flood plain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10, 2, 1, and 0.2 percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 100-year flood (1 percent chance of annual exceedence) in any 50-year period is approximately 40 percent (4 in 10), and, for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses were carried out to establish the peak discharge-frequency relationships for each riverine flooding source studied in detail affecting the community.

The following four flooding sources for the City of Kewanee were studied: Alexander School Creek, Manchester Drive Creek, Mill Street Creek, and Prospect Street Creek. The 10-, 50-, 100-, and 500-year discharges were developed for Mill Street Creek and Prospect Street Creek, both of which were studied in detail. The 100-year discharges were developed for Alexander School Creek and Manchester Drive Creek, both of which were studied by approximate methods.

Flow-frequency equations developed by the U.S. Geological Survey (USGS) for the State of Illinois (Reference 3) were used to determine discharges for rural conditions. As required by FEMA, the rural discharges derived from the State of Illinois equations were adjusted for urbanization (where applicable) using the "Three-Parameter Equations" found in "Magnitude and Frequency of Urban Floods in the United States" (Reference 4).

Drainage areas and channel slopes were determined using the USGS 15 minute Kewanee quadrangle map and the City of Kewanee topographic map with contour intervals of 20 feet and 1 foot, respectively (References 5 and 6). The rainfall intensity and areal factor was obtained from Water Resources Investigations 77-117 (Reference 3).

BEST COPY AVAILABLE

Peak discharges for the 10-, 50-, 100-, and 500-year floods of each flooding source studied in detail in the community are shown in Table 1.

TABLE 1 - SUMMARY OF DISCHARGES

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (SQ MILES)	PEAK DISCHARGE (CFS) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
MILL STREET CREEK at mouth	1.47	700	1,000	1,150	1,400
PROSPECT STREET CREEK at mouth	0.79	500	700	800	1,000

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals.

Water-surface elevations in the incorporated areas of Kewanee were developed for this study by the COE, Rock Island District.

For the streams studied in detail, all hydraulic analyses were made using the COE HEC-2 step-backwater computer program (Reference 7). Due to the small drainage areas, the starting water-surface elevations for Mill Street Creek and Prospect Street Creek were based on the coincident flood elevations of the West Fork Spoon River, which is located outside the corporate limits.

Cross sections for the flooding sources were surveyed during July and September 1983. All bridges and culverts were surveyed to obtain elevations and structural geometry.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles. For stream segments for which a floodway was computed (Section 4.2), selected cross-section locations are also shown on the Flood Boundary and Floodway Map.

Hydraulic analyses of the streams studied by approximate methods was carried out via normal depth analysis using Manning's equation (Reference 8).

Channel and overbank roughness coefficients (Manning's "n") for the hydraulic computations were assigned on the basis of field inspection, analysis of photographs, and engineering judgment. Roughness coefficients for Mill Street Creek ranged from 0.013 to 0.038 in the main channel, and from 0.015 to 0.090 in the overbank areas. Roughness coefficients for Prospect Street Creek ranged from 0.013 to 0.033 and from 0.015 to 0.055 in the channel and overbanks, respectively. The "n" values of 0.013 and 0.015 were used for culverts and bridges, respectively.

Flood profiles were drawn showing the computed water-surface elevations for floods of the selected recurrence intervals. In cases where the 50- and 100-year flood elevations are close together, due to limitations of the profile scale, only the 100-year profile has been drawn.

BEST COPY AVAILABLE

The hydraulic analyses for this study are based only on the effects of unobstructed flow. The flood elevations shown on the profiles are. thus. considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the National Geodetic Vertical Datum of 1929. Elevation reference marks used in this study are shown on the maps.

4.0 FLOOD PLAIN MANAGEMENT APPLICATIONS

The National Flood Insurance Program encourages state and local governments to adopt sound flood plain management programs. Therefore, each Flood Insurance Study produces maps designed to assist communities in developing flood plain management measures.

4.1 Flood Boundaries

To provide a national standard without regional discrimination, the 1 percent annual chance (100-year) flood has been adopted by FEMA as the base flood for flood plain management purposes. The 0.2 percent annual chance (500-year) flood is employed to indicate additional areas of flood risk in the community. For each stream studied in detail, the 100- and 500-year flood plain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using topographic maps at a scale of 1:2400 (reduced from 1:600) and a contour interval of 1 foot (Reference 6).

For the streams studied by approximate methods. only the 100-year flood plain boundary was delineated using USGS topographic maps and topographic maps supplied by the community (References 5 and 6).

The 100- and 500-year flood plain boundaries are shown on the Flood Boundary and Floodway Map. In cases where the 100- and 500-year flood plain boundaries are close together, only the 100-year flood plain boundary has been shown. Small areas within the flood plain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

4.2 Floodways

Encroachment on flood plains, such as structures and fill. reduces the flood-carrying capacity, increases the flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of flood plain management involves balancing the economic gain from flood plain development against the resulting increase in flood hazard. For purposes of the National Flood Insurance Program. a floodway is used as a tool to assist local communities in this aspect of flood plain management. Under this concept, the area of the 100-year flood plain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream plus any adjacent flood plain areas that must be kept free of encroachment so that the 100-year flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1.0 foot. provided that hazardous velocities are not produced. In Illinois though.

BEST COPY AVAILABLE

under Revised Statutes, Section 65f, Chapter 19, as amended in 1973 (Reference 9), encroachment in the flood plain is limited to that which will cause only an insignificant increase in flood heights. Thus, at the recommendation of the Illinois Division of Water Resources, a floodway having no more than a 0.1-foot surcharge has been delineated for this study.

The floodways presented in this study were computed on the basis of equal conveyance reduction from each side of the flood plain. The results of these computations were tabulated at selected cross sections for each stream segment for which a floodway was computed and are presented in Table 2, Floodway Data.

As shown on the Flood Boundary and Floodway Map, the floodway boundaries were computed at cross sections. Between cross sections, the boundaries were interpolated. In cases where the floodway and the 100-year flood plain boundaries are either close together or collinear, only the floodway boundary has been shown.

The area between the floodway and the 100-year flood plain boundaries is termed the floodway fringe. The floodway fringe thus encompasses the portion of the flood plain that could be completely obstructed without increasing the water-surface elevation of the 100-year flood more than 0.1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to flood plain development are shown in Figure 2.

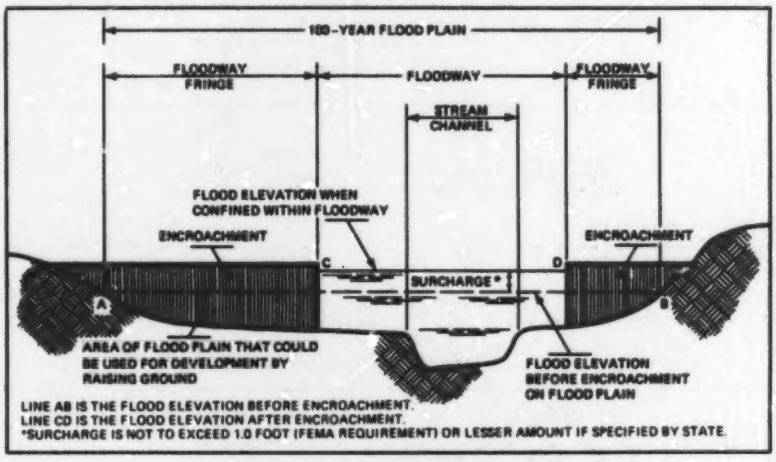

100-YEAR FLOOD PLAIN
FLOODWAY FRINGE
FLOODWAY
FLOODWAY FRINGE
STREAM CHANNEL
FLOOD ELEVATION WHEN CONFINED WITHIN FLOODWAY
ENCROACHMENT
ENCROACHMENT
C
D
SURCHARGE *
A
B
AREA OF FLOOD PLAIN THAT COULD BE USED FOR DEVELOPMENT BY RAISING GROUND
FLOOD ELEVATION BEFORE ENCROACHMENT ON FLOOD PLAIN
LINE AB IS THE FLOOD ELEVATION BEFORE ENCROACHMENT.
LINE CD IS THE FLOOD ELEVATION AFTER ENCROACHMENT.
*SURCHARGE IS NOT TO EXCEED 1.0 FOOT (FEMA REQUIREMENT) OR LESSER AMOUNT IF SPECIFIED BY STATE.

FIGURE 2 - Floodway Schematic

The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

5.0 INSURANCE APPLICATION

To establish actuarial insurance rates, data from the engineering study must be transformed into flood insurance criteria. This process includes the determination of reaches, Flood Hazard Factors, and flood insurance zone designations for each flooding source studied in detail affecting the City of Kewanee.

BEST COPY AVAILABLE

BEST COPY AVAILABLE

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
MILL STREET CREEK								
A	905	136	325	3.5	788.2	788.2	788.3	0.1
B	1805	231	829	1.4	793.3	793.3	793.3	0.0
C	2560	241	472	2.4	795.6	795.6	795.7	0.1
D	2939	89	172	6.7	797.0	797.0	797.0	0.0
E	3330	120	591	1.9	802.0	802.0	802.0	0.0
F	3485	181	517	2.2	802.0	802.0	802.1	0.1
G	3602	164	431	2.7	802.0	802.0	802.1	0.1
H	3730	95	265	4.3	802.6	802.6	802.6	0.0
I	4525	127	437	2.6	807.0	807.0	807.0	0.0
J	4970	145	845	1.4	810.1	810.1	810.1	0.0
K	6025	123	321	3.6	813.0	813.0	813.1	0.1
L	6381	80	309	3.7	816.2	816.2	816.3	0.1
M	6890	85	355	3.2	818.8	818.8	818.8	0.0
N	7475	155	299	3.8	820.1	820.1	820.2	0.1
O	8150	160	411	2.8	826.3	826.3	826.3	0.0
P	8390	150	529	2.2	827.6	827.6	827.6	0.0
Q	8725	126	483	2.4	829.7	829.7	829.8	0.1
R	9128	110	308	3.7	833.9	833.9	833.9	0.0
S	9840	72	197	5.8	838.5	838.5	838.5	0.0

[1]FEET ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL

(HENRY CO.)

FLOODWAY DATA

MILL STREET CREEK

BLANK PAGE

BLANK PAGE

BLANK PAGE

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION			
CROSS SECTION	DISTANCE[1]	WIDTH (FEET)	SECTION AREA (SQ. FEET)	MEAN VELOCITY (FEET/SEC.)	REGULATORY (FEET NGVD)	WITHOUT FLOODWAY (FEET NGVD)	WITH FLOODWAY (FEET NGVD)	INCREASE (FEET)
PROSPECT STREET CREEK								
A	1150	57	185	4.3	785.0	785.0	785.1	0.1
B	1500	161	452	1.8	788.6	788.6	788.6	0.0
C	2050	147	180	4.4	791.2	791.2	791.2	0.0
D	2400	140	243	3.3	794.9	794.9	794.9	0.0
E	2800	142	482	1.7	797.5	797.5	797.5	0.0
F	3655	165	463	1.7	803.5	803.5	803.6	0.1
G	4280	138	593	1.3	809.3	809.3	809.4	0.1

[1]FEET ABOVE MOUTH

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL

(HENRY CO.)

FLOODWAY DATA

PROSPECT STREET CREEK

BEST COPY AVAILABLE

5.1 Reach Determinations

Reaches are defined as sections of flood plain that have relatively the same flood hazard, based on the weighted average difference in water-surface elevations between the 10- and 100-year floods. This difference may not have a variation greater than that indicated in the following table for more than 20 percent of the reach:

Average Difference Between 10- and 100-year Floods	Variation
Less than 2 feet	0.5 foot
2 to 7 feet	1.0 foot
7.1 to 12 feet	2.0 feet
More than 12 feet	3.0 feet

The locations of the reaches determined for the riverine flooding sources of the City of Kewanee are shown on the Flood Profiles and are summarized in Table 3, Flood Insurance Zone Data.

5.2 Flood Hazard Factors

The Flood Hazard Factor (FHF) is used to establish relationships between depth and frequency of flooding in any reach. This relationship is then used with depth-damage relationships for various classes of structures to establish actuarial insurance rate tables.

The FHF for a riverine reach is the weighted average difference between the 10- and 100-year flood water-surface elevations rounded to the nearest 0.5 foot, multiplied by 10, and shown as a 3-digit code. For example, if the difference between elevations is 0.7 foot, the FHF is 005; if the difference is 1.4 feet, the FHF is 015; if the difference is 5.0 feet, the FHF is 050. When the difference is greater than 10.0 feet, it is rounded to the nearest whole foot.

5.3 Flood Insurance Zones

Flood insurance zones and zone numbers are assigned based on the type of flood hazard and the FHF, respectively. A unique zone number is associated with each possible FHF and varies from 1 for a FHF of 005 to a maximum of 30 for a FHF of 200 or greater.

Zone A: Special Flood Hazard Areas inundated by the 100-year flood, determined by approximate methods; no base flood elevations are shown or FHFs determined.

Zone A1: Special Flood Hazard Areas inundated by the 100-year flood, with base flood elevations shown, and zones subdivided according to FHFs.

Zone B: Areas between the Special Flood Hazard Areas and the limits of the 500-year flood; areas that are protected from the

BEST COPY AVAILABLE

100- and 500-year floods by dike, levee, or other water control structure; areas subject to certain types of 100-year shallow flooding where depths are less than 1.0 foot; and, areas subject to 100-year flooding from sources with drainage areas less than 1 square mile. Zone B is not subdivided.

Zone C: Areas of minimal flooding; not subdivided.

Flood elevation differences, FHFs, flood insurance zones, and base flood elevations for each flooding source studied in detail in the community are shown in Table 3, Flood Insurance Zone Data.

5.4 Flood Insurance Rate Map Description

The Flood Insurance Rate Map for the City of Kewanee is, for insurance purposes, the principal product of the Flood Insurance Study. This map contains the official delineation of flood insurance zones and base flood elevation lines. Base flood elevation lines for riverine flooding sources show the locations of the expected whole-foot water-surface elevations of the base (100-year) flood. The base flood elevations and zone numbers are used by insurance agents, in conjunction with structure elevations and characteristics, to assign actuarial insurance rates to structures and contents insured under the National Flood Insurance Program.

6.0 OTHER STUDIES

A Flood Insurance Study has been published for the Unincorporated Areas of Henry County, Illinois (Reference 10). This report is in agreement with the Henry County study.

Due to its more detailed analysis, this Flood Insurance Study supersedes the previously printed Flood Hazard Boundary Map for the City of Kewanee (Reference 11).

7.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting the Natural and Technological Hazards Division, Federal Emergency Management Agency, 300 South Wacker Drive, Chicago, Illinois 60606.

BEST COPY AVAILABLE

BEST COPY AVAILABLE

FLOODING SOURCE	PANEL[1]	ELEVATION DIFFERENCE[2] BETWEEN 1.0% (100-YEAR) FLOOD AND			FLOOD HAZARD FACTOR	ZONE	BASE FLOOD ELEVATION[3] (FEET NGVD)
		10% (10-YEAR)	2% (50-YEAR)	0.2% (500-YEAR)			
MILL STREET CREEK							
REACH 1	0005	−0.7	−0.2	0.3	005	A1	VARIES—SEE MAP
PROSPECT STREET CREEK							
REACH 1	0005	−0.7	−0.2	0.3	005	A1	VARIES—SEE MAP

[1]FLOOD INSURANCE RATE MAP PANEL
[2]WEIGHTED AVERAGE
[3]ROUNDED TO NEAREST FOOT

TABLE 3

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL

(HENRY CO.)

FLOOD INSURANCE ZONE DATA

MILL STREET CREEK—PROSPECT STREET CREEK

8.0 REFERENCES AND BIBLIOGRAPHY

1. U.S. Department of Commerce, Bureau of the Census, 1980 Census of Population, Number of Inhabitants, Illinois, Washington, D.C., February 1982.

2. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, Climatological Data, Annual Summary for Illinois, 1982.

3. U.S. Geological Survey, Water Resources Investigations 77-117, Techniques for Estimating Magnitude and Frequency of Floods in Illinois, G.W. Curtis, 1977.

4. ————, Water Resources Division, Magnitude and Frequency of Urban Floods in the United States, Sauer, Thomas, Stricker, and Wilson, January 1982.

5. ————, 15 Minute Series Quadrangle Maps, Scale 1:62500, Contour Interval 20 feet: Annawan and Kewanee, Illinois.

6. City of Kewanee, Henry County, Illinois, Topographic Maps, Scale 1:600, Contour Interval 1 foot.

7. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water-Surface Profiles, January 1981.

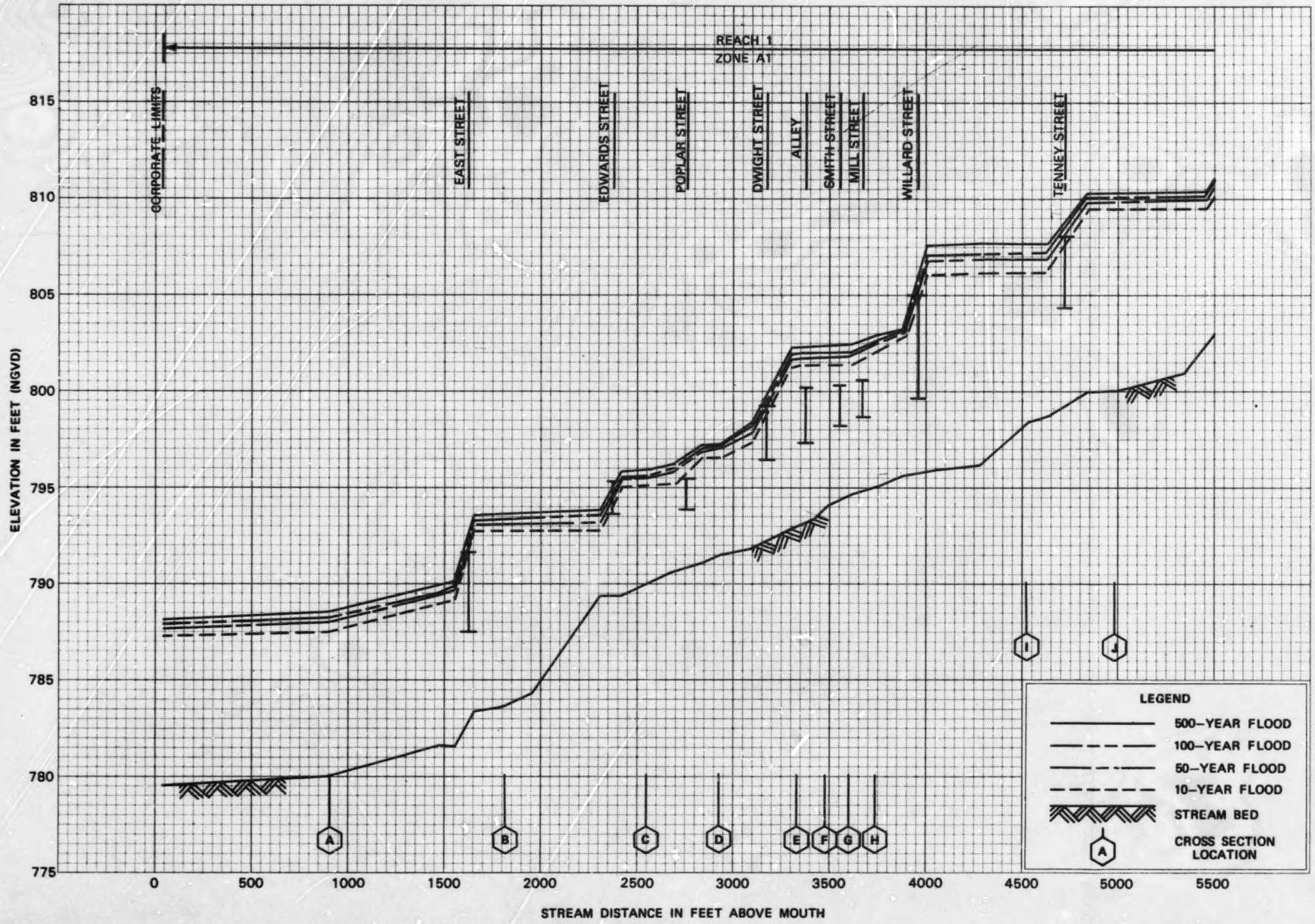
8. ————, Rock Island District, Computer Program to Compute Normal Depth by Manning's Equation (Manning F72299A).

9. Illinois Department of Transportation, Division of Water Resources, Rules and Regulations, Regulation of Construction Within Flood Plains Established Pursuant to Section 65f, Chapter 19, Illinois Revised Statutes, Springfield, Illinois, 1973.

10. Federal Emergency Management Agency, Flood Insurance Study, Henry County, Unincorporated Areas, Illinois, January 1985.

11. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, City of Kewanee, Henry County, Illinois, April 1976.

BEST COPY AVAILABLE



FLOOD PROFILES

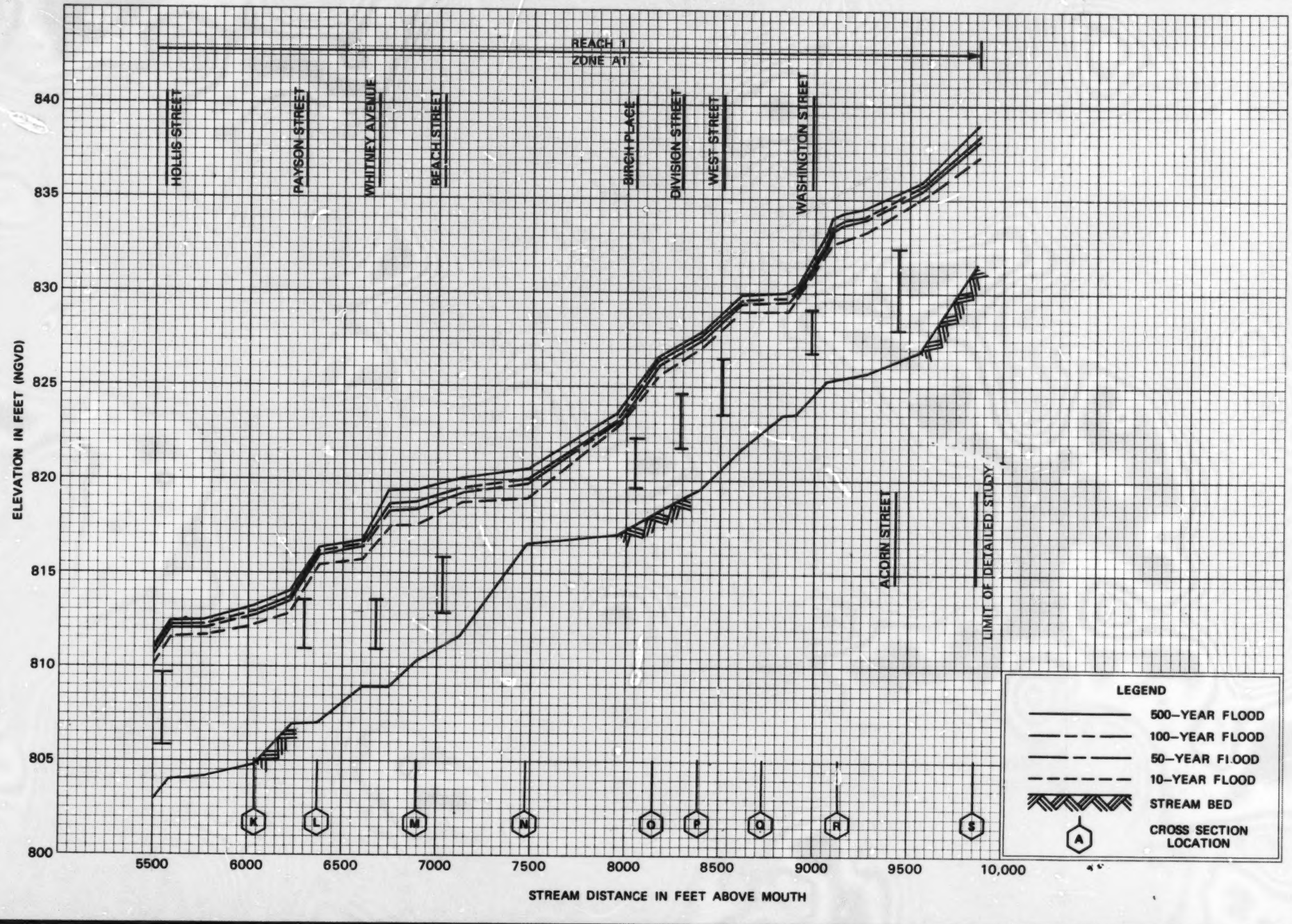
MILL STREET CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL
(HENRY CO.)

01P

BEST COPY AVAILABLE



FLOOD PROFILES

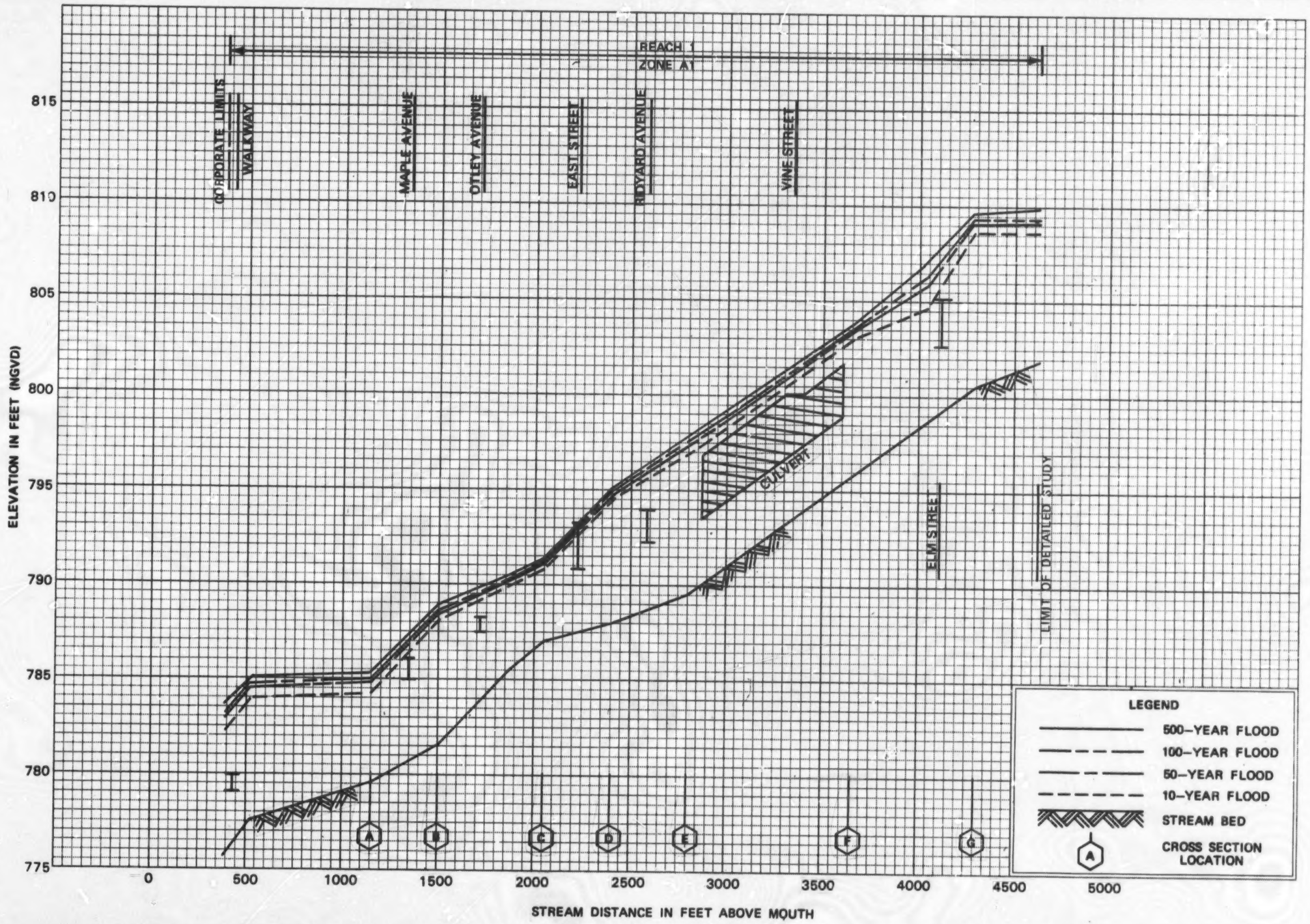
MILL STREET CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL
(HENRY CO.)

02P

BEST COPY AVAILABLE



FLOOD PROFILES

PROSPECT STREET CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

CITY OF KEWANEE, IL
(HENRY CO.)

03P

BEST COPY AVAILABLE